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THE LAW AT SEA

A tidal wave of troubles is at hand—
over territorial rights, fisheries, treasures on the bottom and
the misuse of the oceans as the greatest dump.

By Richard A. Frank

GENEVA. It is the year 2000. The coastal powers have extended their sovereignty to the centers of the oceans. Cargo and military vessels must pay tribute as they pass from one sovereignty zone to another or as they transit straits through which passage once was free. Conflict between the "have" and "have-not" countries, as governments jostle over the resources of the seabed, keeps the world in a state of tension. Fish are a rarity; the few species that survive taste rather odd, for they inhabit an element befouled by enormous amounts of pollution. In most coastal areas, swimming in the sea is forbidden by law. The contamination has killed most of the sea's phytoplankton, the primary source of the earth's oxygen. The environment needed to sustain life on earth is wearing away.

This picture of the world a quarter-century from now may seem unduly dire, yet it is only a projection of current trends. Four major controversies—over territorial seas and strategic straits, over the fish in the oceans, over the oil and mineral riches of the seabed and over marine pollution—have merged into the one overwhelming problem of establishing new regulations for the watery two-thirds of the earth. And while all governments acknowledge that the peace of the world and mankind's very future are at stake, the powerful competing interests at work in each area of controversy have thrown the technicalities of the problem into the swirl of a multinational political contest.

Today, there are no effective regulations for sensible conservation of fisheries, or against unilateral extension of national controls seaward, or against use of the oceans as the world's great garbage dump. There is only a record of four inconclusive attempts since 1958 to organize for orderly use and exploitation of the seas. The last attempt, the international Conference on the Law of the Sea in Geneva, has just concluded with no agreement by the delegations on the major issues—only with a draft text prepared by the committee chairmen that could serve as the basis for further negotiation. About the only clear decision was to convene yet another conference—in New York, next March.

And it is by no means certain that national appetites and the pressures of technological advance can be kept in check for another year. If they can't, the last restraints may be abandoned, and with them any chance of an international solution averting the kind of situation described above.

It is only in the past two decades that the 17th-century concept of the sea as an unchangeable infinitude of freedom, purity and fish resources has had to be discarded as obsolete, to the psychological discomfort of a race of man divested of its last frontier. As various coastal nations asserted sovereignty and economic hegemony over different distances out to sea, the United Nations sponsored

two conferences, in 1958 and 1960, to reconcile these claims. The delegates wrote three treaties permitting coastal states to extend sovereignty seaward and to adopt fish conservation measures over adjacent waters (without stipulating the outer limits in either case), and giving those states sole rights over resources on or below the seabed to a depth of 200 meters—or to whatever depth permitted exploitation. A fourth treaty reasserted freedom of navigation, overflight, fishing and placement of submarine cables and pipelines on the "high seas."

The treaties, in short, codified what had been accepted and left unsettled what had not, including where the high seas began, and none of it was enough to cope with the conflict that the technological advances of the nineteen-sixties brought in their wake. Fishing metamorphosed from the cockleshell boats of yesteryear to factory ships harvesting fish stocks by sonar and helicopter. Oil was discovered in seabed areas beyond 200 meters in depth, and new machinery was built to tap it. So was equipment to retrieve the nodules—lumps varying in size from golf balls to footballs—that are scattered over the ocean bottom and contain enough copper, nickel, manganese and cobalt to supply the earth's needs for generations. The effort to write a modern law of the sea before competition burst out of control became a race against time.

In 1970, proclaiming ocean areas beyond territorial-sea limits the "common heritage" of mankind, the U. N. General Assembly called for another conference, this time to produce a comprehensive treaty settling all the issues that had been skirted before, and that had arisen in the interim as a result of new technological progress. The complexity of the problems overwhelmed the 2,000 delegates of 148 governments who met for 10 weeks in the summer of 1974 in Caracas, Venezuela. The same proved true of the eight-week conference that ended a week ago in Geneva. The primary disputes remain. What are these issues, and why are they so difficult to resolve?

TERRITORIAL SEAS AND STRAITS

The world of the 17th century was steeped in the vision of the inviolate ocean, which "can be neither seized nor enclosed," in the words of Hugo Grotius, the Dutch expositor of the principle of freedom of the seas, for it "rather possesses the earth than is possessed by it." But the privateering off the coast of the young American republic became a nuisance, and President Thomas Jefferson made the first significant dent on free navigation by extending United States jurisdiction out to sea 3 miles, the farthest distance a cannonball could travel. Other maritime nations followed suit.

In clinging in recent times to the 3-mile limit as the international norm, in spite of the trend of many coastal countries to push their territorial sea claims out to 12 miles or more, the United States and such other maritime countries as Britain and Japan have been concerned with something far

removed from obsolete criteria of coastal gunnery. If 12 miles, the widely favored compromise, became international law, more than 100 straits between 6 and 24 miles in width would fall within the sovereign jurisdiction of the adjacent coastal states. Under the 1958 treaty, vessels of other countries must be granted "innocent passage" through territorial seas—passage that is not "prejudicial to the peace, good order, or security of the coastal state." But what that means is in dispute; some countries hold that passage by a military vessel or any submerged vessel is, per se, not innocent. The change would mean, for example, that the United States Sixth Fleet, which has unencumbered passage from the Atlantic to the Mediterranean through the Straits of Gibraltar, would retain only the right of "innocent" transit as interpreted by Britain, Morocco and Spain. This inhibition on military mobility might act as a restraint on new adventures like Vietnam, but few naval powers are likely to take that view of the problem.

The United States and other maritime powers insist on an explicit guarantee of unimpeded transit—as opposed to "innocent passage"—through and over all important straits if 12 miles were accepted as the new international standard. An added proviso is that commercial ships and planes transiting or overflying the straits be regulated by international traffic controls. The maritime powers contend that any additional restrictions imposed by the straits states would unduly hamper commercial shipping and would tend to raise consumer prices by increasing transport costs.

The issue has long been deadlocked. The straits states have wanted to adopt their own traffic and other regulations and to enforce them unilaterally. They have also been demanding compensation for any damage, such as the

ruin of the shorelines caused by a recent oil spill from a Japanese supertanker in the Strait of Malacca. But they came under intense pressure from the maritime powers at Geneva, and they may be forced to settle for much less than they want—perhaps for limited enforcement rights, and for compensation in case of damage involving violation of transit rules.

OIL AND THE ECONOMIC ZONE

In 1967, dismayed by the way things were moving, Malta's Ambassador to the United Nations, Arvid Pardo, made a landmark speech before the General Assembly. Pardo, one of the world's experts on the subject, called for creation of an international regime to govern the exploitation of ocean resources beyond the limits of national jurisdiction. He argued that such wealth should be shared by all, with most of it going to those that have least, the developing countries. The dream he evoked provided the inspiration for the Law of the Sea Conference—and collided almost at once with the reality of national power and what was conceived as national self-interest.

Of the 15-billion barrels of oil produced each year, one-fifth comes from offshore

production—a technique applied after President Truman proclaimed exclusive national control over the resources of the continental shelf (the seabed area adjacent to the coast) and other countries followed the American example. By 1980, offshore production will account for 30 to 40 per cent of the total. According to a rather optimistic United Nations study, the seabed contains an equivalent of 2,722 billion barrels of oil, enough to satisfy world consumption at present levels for 140 years. At the same time, the National Petroleum Council estimates that between 30 and 45 per cent of the oil in the seabed lies beyond the continental shelves, at depths greater than 200 meters. And the technology is ready for undersea oil production at depths of thousands of feet.

Most of the 120 coastal states have insisted on unilateral control over oil and mineral resources well beyond the limits of present national jurisdiction—over what is known as the "continental margin," consisting of an undersea continental shelf and a further decline, the whole extending as far as 400 miles from land before the deep ocean bottom is reached. The United States has proposed a way of bridging the gap between that position and the Pardo dream. The coastal states would retain national jurisdiction to a depth of 200 meters, and the seabed from there to the outer edge of the continental margin would be a "trusteeship area" administered by the coastal state on behalf of the international community, with royalties paid to an international fund. The ocean floor beyond that would be an international area administered by a new international agency.

The compromise was sensible but doomed—because it was the suggestion of the paradigm of the developed world, and because it envisioned a new form of international sharing. The death knell came when the Middle East oil-producers' cartel embargoed exports in 1973. Consuming countries with coastlines promptly lost all interest in sharing ownership of any area potentially containing oil or gas reserves. They leaned instead to a plan for extending national jurisdiction over both living and nonliving resources to, say, 50 to 200 miles from the coast.

The law of the sea conference has, in effect, agreed on a convention establishing a 12-mile

territorial sea and a 200-mile economic zone—if and when there is agreement on the rights and obligations of the coastal states in those areas. The essential elements of the proposed treaty thus remain unresolved.

Should such a treaty, providing for a 200-mile economic zone, emerge from next year's conference, it will mean that countries already benefiting from large productive coastal areas will get richer, and the disparity between them and the landlocked and otherwise geographically disadvantaged will widen. And a 200-mile economic zone will mean the nationalization, in effect, of one-third of the oceans. That will pose some knotty questions. For example, if Saaremaa, Fyn, Masbate, Unimak, Iturup and the other 500,000 or so subcontinental land masses called islands are entitled to a 200-mile economic zone, some very small rocks will each end up with more than 125,000 square miles of sea and seabed. Indeed, Britain has taken possession of a tiny dot in the Atlantic called Rockhall, presumably so that it can claim jurisdiction over a 200-mile zone around the island.

FRUITS DE LA MER

The most immediate conflict of interests inherent in the idea of a 200-mile economic zone is over fishing rights, involving a yield of 75 million tons of seafood a year. Going beyond the language of the 1958-60 treaties, which permit coastal conservation schemes, most coastal countries have asserted exclusive jurisdiction over fishing 12 miles out to sea. Long-distance fishing countries like the United States, the Soviet Union and Japan have refused to recognize broader claims, such as those of Chile, Ecuador and Peru, which have declared a 200-mile fishing-jurisdiction zone amounting, in effect, to a territorial sea. The countries asserting those claims have resorted to armed force against fishing vessels, as in the "cod war" between Iceland and England, the "lobster war" between Brazil and France and the "tuna war" between Ecuador and the United States. Other coastal countries have concluded bilateral agreements, collecting license fees from foreign fishermen and placing limitations on catch, gear and seasons.

The argument on this issue centers on the insistence of claiming extensive fishing jurisdiction that they

will not relinquish control. The 200-mile economic zone, they say, must encompass the fish.

This presents a dilemma for the United States. The American fishermen who harvest cod, halibut and other species off the United States coasts account for more than 80 per cent of the nation's catch; for them, extending jurisdiction would protect their grounds from the more efficient and rapacious Soviet, Norwegian and Japanese fleets. But the American fleets that seek shrimp off Brazil and Mexico and tuna off Peru and Ecuador would pay dearly for international codification of those countries' jurisdictional controls. The United States, therefore, favors a species approach. Coastal states would be given preferential and administrative rights over all coastal fish and anadromous species (which spawn in rivers but otherwise live in the sea), with the understanding that other states, especially those that traditionally fished the resource, would be given access if the species were not fully utilized by the coastal state up to the allowable catch. Migratory species would be regulated in part by a multilateral organization, over which the United States could exert some control.

Many of the coastal states remain adamant in their insistence on virtually complete jurisdiction over both coastal and migratory species in their 200-mile zones. The treaty language they are willing to adopt would give only the vaguest rights to fishermen of other nations. In any event, the negotiation on a comprehensive fisheries agreement has focused, just as in the present bilateral accords, on division of resources rather than on prudent management aimed at maximizing returns and alleviating the world food shortage. This approach has resulted thus far in overfishing and biological and economic waste, and shifting from open access to national control is not likely to promote greater rationality.

THE DEEP SEABED

What the origin is of the nodules found plentifully over thousands of square miles of ocean bottom, usually far from land, scientists are not sure; what the exploitation of this mineral-rich resource could mean in economic terms has nations embroiled in potentially explosive dispute.

While the United States

produces most of its copper, it imports almost all of its manganese, cobalt and nickel, and access to the deep-sea nodules with their store of all four minerals would bring sizable benefits. Several American companies and others in West Germany, Japan, Britain, France, Belgium and Canada have been fashioning the necessary technology. Within three years or so, such companies as Howard Hughes's Summa Corporation, Kennecott Copper and Tenneco's Deepsea Ventures will be capable of retrieving the nodules from the ocean floor, 15,000 feet down, by vacuum cleanerlike suction.

The American companies want to proceed quickly, so as not to lose their technological lead. At the same time, nodule mining promises to be an expensive and speculative business, with an entry fee of \$250-million or so, and some companies are hesitant to begin—thus disclosing the location of the particularly rich sites—without assurances that competitors could not interlope. At their urging in each Congress since 1971, Senator Lee Metcalf, Democrat of Montana, has introduced legislation under which the United States would license the mining of sites on the high seas and guarantee investments. The bill has not moved, so Deepsea Ventures notified Secretary of State Henry Kissinger late last year of its claim of exclusive mining rights over a 60,000-square-kilometer area in the Pacific and petitioned for diplomatic protection. The Secretary replied that he was not a registrar of claims.

In fact, the United States has agreed in principle to transfer some control over mining operations to a new international seabed authority. But here it has been at loggerheads with other governments. The developing countries envision a new economic order, under which they would receive benefits from the harnessing of the earth's resources. They have demanded that the authority be an "enterprise," which would itself engage in mining, and in which, as members, they would have proprietary interest and control. The United States and others with advanced mining technology have insisted that the authority merely license and regulate private companies, with no limits on production, and with royalties to be shared for international community purposes. At the same time,

land-based producers like Zaire, Chile, Canada and the Soviet Union are afraid that nodule exploitation would decrease demand for their output and lower its value, and some of them have tried every tactic of delay.

The discord surrounding the issue was given an unexpected twist by the report that a strange pair of heavily equipped vessels built by Howard Hughes—ostensibly for experimental nodule mining, in apparent obliviousness to international negotiation and domestic legislation—had actually been financed by the Central Intelligence Agency, at more than \$350-million, for a top-secret effort to salvage a sunken Soviet submarine. Whether the salvage vessel, Glomar Explorer, and its hulking barge return to waters off Hawaii to complete their partially successful operation of last summer, as the C.I.A. has proposed, or will now be "rejiggered" for nodule hunting, as one American intelligence official is reported to have put it, the episode bemused the conference and touched on the side issue of espionage under cover of scientific research.

These differences and suspicions, aside, the governments are being asked to give birth to a unique international organization with several internal organs, a charter of more than 100 articles and a variety of economic and environmental regulations. The skeptics believe it cannot be done, and the results of the Geneva session suggest they are right. There is still no agreement on what the basic attributes of the organization should be, and the developing countries have turned down an American compromise proposal under which part of the ocean would be mined by companies and part would be reserved for mining by the international enterprise, with technical and financial assistance from the developed world. The proposal may even prove to be unacceptable to a reformist Congress in Washington since the United States mining companies are likely to be offered tax benefits as a quid pro quo for giving up some of the mining sites.

MARINE POLLUTION

The ocean has always had a miraculous capacity to absorb, digest and degrade contaminants, but many scientists fear that the limit to that capacity has been reached. According to a 1974

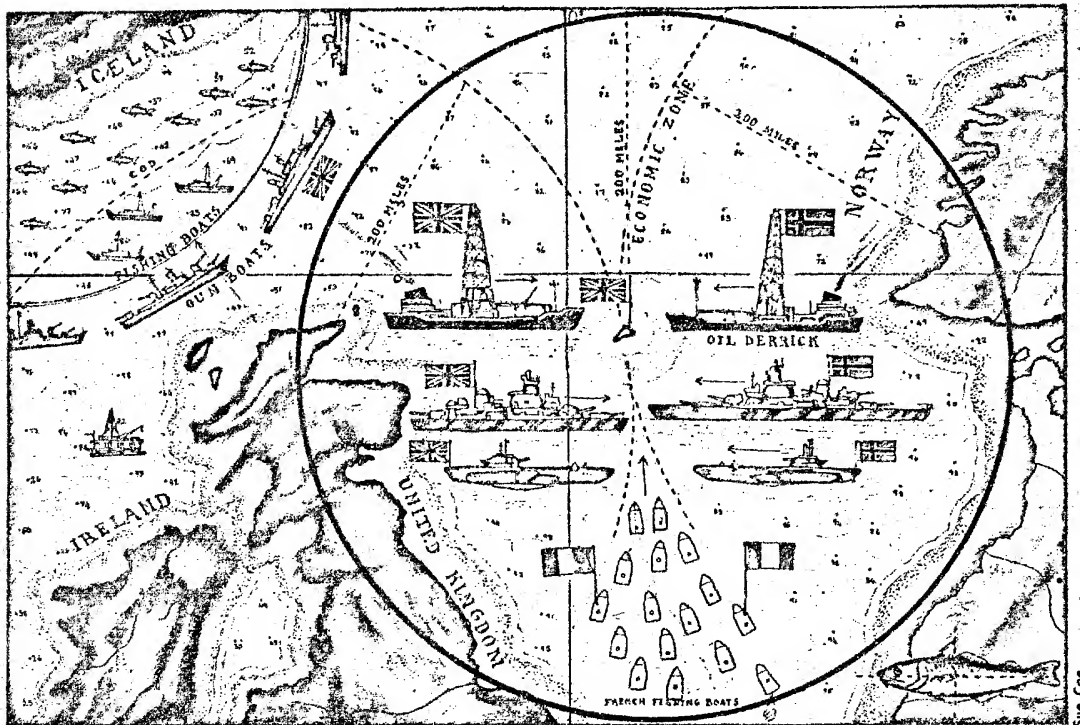
report by the United States National Oceanic and Atmospheric Administration, the waste dumped by New York and other East Coast cities has combined with tanker discharges to form a constant sludge of oil and plastics 1 million square miles out into the Atlantic and down to the Caribbean as far as Yucatan. Thor Heyerdahl, crossing the Atlantic in his papyrus reed raft, Ra, found lumps of solidified oil and trash floating literally shore to shore. Beaches on the west coast of Africa are a mixture of sand and oil. The Mediterranean is almost a dead sea. The Audubon Society reports an increasing number of "aquatic anomalies"—seabirds along the coast flying erratically as if drunk or dizzy, before plunging helplessly into the sea, hundreds of poisoned sea lions crawling up the California beaches and traveling a mile inland before dying.

Environmental conventions of the past decade have suffered from low standards and ineffective enforcement. Nothing better came out of Geneva, and there is little prospect of any improvement at the next conference.

Most countries refuse to be made financially liable for damage by municipal sewage, industrial wastes or any other type of pollution. In fact, the bloc of developing countries, arguing that the industrialized countries have become industrialized by polluting the sea, contend that it is now the developing countries' turn. They want a more lenient standard applied to the "third world," permitting its members to pollute to achieve development. There is little chance of the nations agreeing on any effective control of pollution from land.

That leaves pollution by vessels at sea, principally in the form of oil spills.

As recently as 1948, no cargo ship weighed more than 26,000 dead weight tons. By 1973, there were more than 400 oil tankers of 200,000 or more tons, two of them of 447,000 tons and as long as five football fields. They are built with skin-thin steel hulls and without safety standards common to other types of ship. Noel Mostert, in his book "Supership," finds their design features "ludicrous." Many of them are subject only to standards and enforcement of the states where they are registered, and "flag states" like Panama and Liberia provide rock-bottom



The coastal nations are on the verge of claiming "economic zones" for themselves 200 miles out to sea. But what happens when a country claims a tiny island with a 200-mile zone of its own, cutting across someone else's zone? And what about other nations that have been harvesting the resources in those areas as part of the high seas? The problem, illustrated here symbolically in an area circled on the map on facing page, is one of a number that are rife with potential conflict.

standards and little if any enforcement. The maritime countries seem willing to require compliance with internationally accepted standards, but these would be promulgated under the auspices of the Intergovernmental Maritime Consultative Organization, a U.N. specialized agency that is dominated by the shipping industry and that has always adopted the lowest common denominator.

With understandably little faith in international action, Canada sent shocks through the maritime and oil industries in 1970 by declaring pollution jurisdiction out to 100 miles, and some governments want that approach adopted generally. The United States, unwilling to go that far, has proposed that states establish and enforce standards for vessels using their ports.

The future looks ominous. The oceans will see more tanker traffic, deeper oil rigs and pipelines and huge under-sea oil storage tanks. As pop-

ulation and living standards increase, so will waste, including radioactive wastes in concrete drums that may not remain leakproof forever. The dark "plumes" of red clay discard from deep-sea mining form over large areas of the ocean surface and take five years to filter down just through 100 yards of the euphotic zone—the top layer of water, with enough sunlight in it to sustain most of the life in the ocean—and no one is sure of the consequences. Some nuclear plants will be sited at sea. Their proponents claim that the possibility of leakage is remote. But what if the one-in-a-million leak is plutonium? With a horrifying half-life of 25,000 years, plutonium is so cancer-producing that a concentration the size of a meatball could destroy life on earth.

Even without such accidents, failure to adopt a comprehensive and effective environmental protection system will lead to pollution of

the oceans in the fullest sense. "If the oceans become polluted," says John Knauss, Marine Affairs Provost at the University of Rhode Island, "they will probably remain polluted on any time scale meaningful to man." Jacques Piccard, the Swiss oceanographer, warns that if the momentum does not change, life in the seas will be extinguished within two or three decades.

Mankind has not succeeded at such tasks as urban planning, disarmament and making the world's food supply meet demand; perhaps it is failing now at the task of preserving the ocean for free communications and sustenance of life.

Both the Caracas and Geneva conferences oriented their efforts toward allocating resources among countries and protecting military rights rather than maximizing ocean benefits for mankind at large. The attempts at allocation

have made some progress, but not enough.

Most countries will now consider a new wave of unilateral extensions of territorial seas. Many may extend fishing rights 200 miles out to sea. Some may claim jurisdiction over the seabed resources to the end of the continental margin. In the United States, some form of legislation establishing 200 miles of fishing jurisdiction will probably be adopted, and bills for Federal licensing of deep-sea mining and for a 200-mile pollution control zone will also be debated. The unhappy choice is thus between "going unilateral"—a course leading to disputes that may or may not yield to bilateral or regional solutions—and waiting for yet another international conference in 1976 in the hope that somehow, despite the poor record of the past two decades, something happens to make the delegates write a sensible and effective law of the sea. ■